

What is claimed is:

1. A machine-implemented method comprising:
loading a bus-to-network device driver during a machine boot, the bus-to-network device driver capable of distinguishing between received responses to machine bus commands and other network traffic corresponding to a network driver.
2. The method of claim 1, the bus-to-network device driver further capable of sending machine bus commands over a network and providing access to the network for the network driver, and wherein said loading the bus-to-network device driver occurs in response to an operating system load of bus drivers.
3. The method of claim 2, wherein the bus-to-network device driver comprises an iSCSI driver, and the operating system load of bus drivers comprises the operating system load of SCSI drivers.
4. The method of claim 1, wherein said loading the bus-to-network device driver comprises:
loading a first bus-to-network driver that controls a network device; and
loading a second bus-to-network driver that encapsulates the machine bus commands, includes a network stack and interfaces with a network through the first bus-to-network driver.
5. The method of claim 1, further comprising loading the network driver capable of communicating with a network through the bus-to-network device driver.

6. The method of claim 5, further comprising disabling the network driver, said disabling cutting off general purpose network traffic but having no effect on the bus-to-network device driver's sending of the machine bus commands.

7. The method of claim 5, further comprising:
engaging the bus-to-network device driver to perform block storage of data to a storage target over the network using a connectionless packet-switched communication protocol; and
engaging the network driver to direct general purpose network traffic over the network.

8. The method of claim 7, wherein the general purpose network traffic comprises TCP/IP traffic.

9. The method of claim 1, wherein the bus-to-network device driver distinguishes between the received responses based on hardware addresses.

10. The method of claim 9, wherein the hardware addresses comprise MAC addresses.

11. The method of claim 1, further comprising receiving the bus-to-network device driver over a network.

12. The method of claim 1, further comprising:
installing an operating system to a storage target; and
booting the operating system from the storage target, said loading occurring during said booting.

13. The method of claim 1, wherein the bus-to-network device driver comprises a portion of a boot loader.

14. The method of claim 1, wherein said loading comprises loading the bus-to-network device driver during multiple machine boots of multiple data processing machines.

15. The method of claim 14, wherein the multiple data processing machines comprise at least one modular platform.

16. An apparatus comprising:
a network device;
a device driver that operates the network device and supports booting to a remote boot device; and
a network driver that communicates with the network device through the device driver, presents itself to an operating system as a network device driver that operates the network device, and supports general purpose network traffic.

17. The apparatus of claim 16, wherein the device driver comprises a bus-to-network driver loaded during booting in response to an operating system load of bus drivers.

18. The apparatus of claim 17, wherein the device driver further comprises a hardware driver that operates the network device, and the bus-to-network driver communicates with the network device through the hardware driver and presents itself as a bus driver to the operating system.

19. The apparatus of claim 18, wherein the bus-to-network driver comprises an iSCSI driver that presents itself as a SCSI driver to the operating system.

20. The apparatus of claim 19, wherein the hardware driver discriminates between iSCSI traffic and the general purpose network traffic based on hardware addresses.

21. The apparatus of claim 20, wherein the hardware addresses comprise MAC addresses.

22. The apparatus of claim 16, wherein the network device comprises a network interface card.

23. The apparatus of claim 22, wherein the device driver comprises a portion of code tangibly embodied in an option ROM of the network interface card.

24. An apparatus comprising:
a network device; and
dual purposed network interface means for supporting network storage target boot and general purpose network connectivity.

25. The apparatus of claim 24, wherein the dual purposed network interface means comprises bus device driver means for operating the network device, virtual network driver means for connecting an operating system network stack with the bus device driver means, and means for loading the bus device driver means by hooking into a third party bus driver insertion point in a boot up sequence of the operating system.

26. The apparatus of claim 25, wherein the network storage target boot comprises iSCSI boot, and the general purpose network connectivity comprises TCP/IP traffic.

27. The apparatus of claim 25, further comprising a main circuit board including the network device integrated thereon.

28. A system comprising:
at least one local system bus;
modular elements, each modular element being removably coupled with the at least one local system bus;
a network device operationally coupled with the at least one local system bus;
a device driver that operates the network device and supports booting to a remote boot device; and
a network driver that communicates with the network device through the device driver, presents itself to an operating system as a network device driver that operates the network device, and supports general purpose network traffic

29. The system of claim 28, wherein each of the modular elements comprises a processor.

30. The system of claim 29, wherein each of the modular elements comprise a blade server comprising the processor.

31. The system of claim 28, wherein the network device includes first and second hardware addresses assignable to the device driver and the network driver respectively.

32. The system of claim 31, further comprising:
a local area network; and
a dynamic host configuration protocol server including first and second scopes, the first scope comprising a single network address keyed to the first hardware address of the network device, and the second scope comprising a range of network addresses keyed to exclude the first hardware address of the network device.

33. The system of claim 32, wherein the first and second hardware addresses comprise MAC addresses, the network addresses comprise IP addresses, and the dynamic host configuration protocol server is configured to assign iSCSI boot variables in the first scope and to assign network variables in the second scope.

34. An article comprising a machine-readable medium embodying information indicative of instructions that when performed by one or more machines result in operations comprising:

- encapsulating machine bus commands according to at least one networking protocol;

- sending the encapsulated machine bus commands over a network;

- providing an interface to a network driver;

- sending communication information received from the network driver over the network; and

- distinguishing between first and second return information received in response to the encapsulated machine bus commands and the communication information respectively.

35. The article of claim 34, wherein a bus-to-network driver performs said encapsulating and provides the encapsulated machine bus commands to a hardware driver that performs said sending the encapsulated machine bus commands, said providing an interface, said sending communication information, and said distinguishing between first and second return information.

36. The article of claim 34, wherein said distinguishing between first and second return information comprises distinguishing based on hardware addresses.